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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,407	07/29/2003	Kiyoshi Kusama	00862.002959.1	6364

5514 7590 03/09/2006

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

HARPER, LEON JONATHAN

ART UNIT	PAPER NUMBER
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2166

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/628,407	Applicant(s) KUSAMA ET AL.	
	Examiner Leon J. Harper	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-19,41-45,57-65,67,68,71 and 72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-19,41-45,57-65,67,68,71 and 72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/2/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application 10628407 filed on 7/29/2003.

Claims 11-19,41-45,57-65,67,68,71,72 are pending.

Claim Objections

Claims 67,68 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Both claims 67,68 are substantial duplicates of claims 11, 15 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6075905 (hereinafter Herman) in view of US 5325449 (hereinafter Burt).

As for claim 11 Herman discloses: determining a material image and its position according to an original image and the first information by said the image processing apparatus (See column 8 lines 33-38); storing the plurality of material images in the image storage apparatus, and outputting an material image out of the plurality of material images stored in the storage apparatus according to the position determined in said determining step (See column 6 lines 36-39).

Herman differs from the claimed invention in that it does not explicitly disclose: holding first information including a characteristic quantity of each of a plurality of material images by the image processing apparatus and the first information corresponds to each of the plurality of material images and has an amount of information less than that of each of the plurality of material images. Burt however does disclose holding first information including a characteristic quantity of each of a plurality of material images by the image processing apparatus (See column 5 lines 13-17), the first information corresponds to each of the plurality of material images and has an amount of information less than that of each of the plurality of material images (See column 5 lines 40-44 note: the lower the resolution the less information that needs to be stored). It would have been obvious to an artisan of ordinary skill in the pertinent art at the time the invention was made to have incorporated the teachings of Burt into the system of Herman. The modification would have been obvious because when you are storing a plurality of images including characteristics quantities is one way to distinguish between the images.

As for claim 12 the rejection of claim 11 is incorporated, and further Herman discloses said determining includes determining a material image corresponding to each block created by dividing the original image for positioning of the material image (See column 5 lines 63-66 "Averaging technique), and said outputting step includes forming a mosaic image by combining material images corresponding to each block (See column 24 lines 10-15 note: "this deals with the frame to mosaic computations").

As for claim 13 the rejection of claim 11 is incorporated, and further Herman discloses: the first information is a scale-down image of each of the plurality of material images (See column 5 line66- column 6 line 3).

As for claim 14 the rejection of claim 11 is incorporated, and further Burt discloses said the first information is a characteristic quantity of each of the plurality of material images (See column 5 lines 13-17).

As for claim 15 Herman discloses: determining a material image according to the original image and the information (See column 8 lines 33-38); and outputting information indicating the determined material image to said the image storage apparatus (See column 6 lines 36-39). Herman differs from the claimed invention in that holding information including a characteristic of each of the plurality of material images is not explicitly indicated. Burt however does disclose holding information including a characteristic of each of the plurality of material images (See column 5 lines 13-17). It would have been obvious to an artisan of ordinary skill in the pertinent art to have incorporated the teaching of Burt into the system of Herman. The modification would have been obvious because when you are holding a plurality of images including characteristics quantities is one way to distinguish between the images.

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As for claim 16 the rejection of claim 15 is incorporated and further Herman discloses: wherein said output step includes combining selected material images to form a mosaic image (See column 6 lines 36-39).

As for claim 17 the rejection of claim 15 is incorporated, and further Burt discloses: further comprising a step of receiving information including a characteristic of each of the plurality of material images from said the image storage-apparatus. (See column 5 lines 13-17).

As for claim 18 the rejection of claim 15 is incorporated, and further Herman discloses: wherein the plurality of material images are divided into a plurality of groups and held, and said method further comprises a step of specifying any of the plurality of groups (See column 9 lines 21-29 "note each collection of sub-mosaics is a group" The calculations follow and the when calculations E.sub.mn. comes out to be zero you have a new group).

As for claim 19 the rejection of claim 15 is incorporated, and further Herman discloses: further comprising a step of receiving the mosaic image formed in the image storage apparatus (See column 6 lines 29-34).

As for claim 41 Herman discloses: means for determining a material image according to the original image and the information (See column 8 lines 33-38) and

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output means for outputting information indicating the determined material image to the image storage apparatus (See column 6 lines 36-39). Herman differs from the claimed invention in that a holding means for holding information including a characteristic of each of the plurality of material images determination is not explicitly indicated. Burt however does disclose a holding means for holding information including a characteristic of each of the plurality of material images determination (See column 5 lines 13-17). It would have been obvious to an artisan of ordinary skill in the pertinent art to have incorporated the teaching of Burt into the system of Herman. The modification would have been obvious because when you are holding a plurality of images including characteristics quantities is one way to distinguish between the images.

As for claim 42 the rejection of claim 41 is incorporated, and further Herman discloses: wherein said output means combines selected material images to form a mosaic image (See column 6 lines 36-39).

As for claim 43 the rejection of claim 41 is incorporated, and further Burt discloses: a means for receiving information including a characteristic of each of the plurality of material images from the image storage apparatus (See column 5 lines 13-21).

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As for claim 44 the rejection of claim 41 is incorporated, and further Herman discloses: wherein the plurality of material images are divided into a plurality of groups and held and said apparatus further comprising a means for specifying any of the plurality of groups. (See column 9 lines 21-29 "note each collection of sub-mosaics is a group" The calculations follow and the when calculations E.sub.mn. comes out to be zero you have a new group).

As for claim 45 the rejection of claim 41 is incorporated, and further Herman discloses: further comprising a means for receiving the mosaic image formed in said the storage apparatus (See column 6 lines 29-34).

As for claim 57 Herman discloses: determining means for determining a material image and its position according to an original image and the first information (See column 8 lines 33-38); image storage apparatus comprising' means for storing the plurality of material images (See column 4 lines 12-16 note "all of which have memory constituting the means") and means for outputting a material image out of the plurality of material images stored in said image storage apparatus according to the position determined by said determination means (See column 6 lines 36-39 and column 10 lines 26-36). Herman however, differs from the claimed invention in that means for holding first information including a characteristic quantity of each of a plurality of material images and wherein the first information corresponds to each of the plurality of material images and has an amount of information less than that of each of the plurality

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of material images are not explicitly indicated. Burt however does disclose means for holding first information including a characteristic quantity of each of a plurality of material images (See column 5 lines 13-17) and wherein the first information corresponds to each of the plurality of material images and has an amount of information less than that of each of the plurality of material images (See column 5 lines 40-44 note: the lower the resolution the less information that needs to be stored).

As for claim 58 the rejection of claim 57 is incorporated, and further Herman discloses: wherein said determination means determines a material image corresponding to each block created by dividing the original image for positioning of the material image (See column 5 lines 63-66 "Averaging technique"), and said output means forms a mosaic image by combining material images corresponding to each block (See column 24 lines 10-15 note: "this deals with the frame to mosaic computations").

As for claim 59 the rejection of claim 57 is incorporated, and further Herman discloses: wherein the first information corresponding to the material images is a plurality of scale-down image or a plurality of image characteristic parameters corresponding to the plurality of material image (See column 5 line 66- column 6 line 3).

As for claim 60 the rejection of claim 57 is incorporated, and further Burt discloses: wherein said image processing apparatus further comprises receiving means

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for receiving the first information corresponding to the plurality of material images from said image storage apparatus (See column 5 lines 13-21).

As for claim 61 the rejection of claim 57 is incorporated, and further Burt discloses: wherein said receiving means receives the first information corresponding to said the material images during activation of said image processing system (See column 5 lines 40-44 note: This is step 1).

As for claim 62 the rejection of claim 58 is incorporated, and further Herman discloses: wherein said storage means stores the plurality of material images by dividing the plurality of material images into a plurality of groups, and said determination means determines a material image and its position according to the first information corresponding to a plurality of material images contained in a selected group. (See column 9 lines 21-29 "note each collection of sub-mosaics is a group" The calculations follow and the when calculations $E_{sub.mn}$ comes out to be zero you have a new group).

As for claim 63 the rejection of claim 58 is incorporated, and further Herman discloses: wherein said receiving means further receives a mosaic image generated by said output means (See column 6 lines 29-34).

As for claim 64 the rejection of claim 58 is incorporated, and further Herman discloses: wherein said image processing apparatus receives the material image

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determined by said determination means from said image storage means by said receiving means and positions the material image received by said receiving means according to the position determined by said determination means to form a mosaic image (See column 9 lines 35-46).

As for claim 65, the rejection of claim 57 is incorporated, and further discloses: wherein a plurality of said image processing means are provided and said image storage means can be shared between said plurality of image processing means (See column 13 lines 30-40 noting that each level of the pyramid resides in a different memory location).

Claims 67 and 68 are rejected for the same reasons as set forth in the rejection of claims 11 and 15 respectively.

As for claim 71 Herman discloses: An image processing apparatus which constructs an image processing system together with an image selection apparatus for selecting a desired material image from a plurality of material images (See column 1 lines 9-10), comprising hold means for holding the material images (See column 4 lines 12-16 note "all of which have memory constituting the means"). Herman differs from the claimed invention in that connected via a network is not explicitly indicated. It would have been obvious however to an artisan of ordinary skill in the pertinent art to have incorporated a network into the system of Herman. The modification would have

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obvious because network allow for the sharing of information from multiple computers, which means that it is possible to derive a better picture from images on multiple computers. Networks were also faster and more efficient than using removable storages to transport images from a different computer at the time the invention was made.


Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon J. Harper whose telephone number is 571-272-0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LJH
Leon J Harper
March 2, 2006


MOHAMMAD ALI
PRIMARY EXAMINER